

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

1. **(Currently Amended)** A method for correcting a voltage of a secondary battery, the method correcting battery voltages measured in a battery system having plural voltage measurement systems and having plural secondary batteries in each of the voltage measurement systems, and the method comprises steps of:

calculating representative voltages from battery voltages measured in the respective voltage measurement systems in an electronic control unit;

calculating voltage correction values on the basis of the calculated representative voltages in the electronic control unit; and

correcting the measured voltages of the secondary batteries in the voltage measurement systems, on the basis of the voltage correction values; and

controlling a state of charge of the battery system using the corrected measured voltages.

2. **(Original)** The method for correcting a voltage of a secondary battery according to claim 1, wherein the representative voltages are calculated as average voltages of the battery voltages measured in the respective voltage measurement systems, the method for correcting the voltages of the secondary batteries comprises a step of calculating a difference between average voltages of different voltage measurement systems, and the voltage correction values are calculated on the basis of the average voltage differences so that the average voltages in the voltage measurement systems are equalized.

3. **(Original)** The method for correcting a voltage of a secondary battery according to claim 1, wherein the representative voltages are calculated without measured voltages of batteries that have been determined to be abnormal in the respective voltage measurement systems.

4. **(Original)** The method for correcting a voltage of a secondary battery according to claim 1, wherein the representative voltages are calculated without measured voltages whose deviations from the representative voltages in the respective voltage measurement systems exceed a predetermined range.

5. **(Original)** The method for correcting a voltage of a secondary battery according to claim 1, wherein the representative voltages are calculated without measured voltages of batteries whose temperatures are different from the temperatures of the remaining batteries in the respective voltage measurement systems and the differences are greater than a predetermined value.

6. **(Original)** The method for correcting a voltage of a secondary battery according to claim 1, wherein the representative voltages are calculated without measured voltages from a voltage detection circuit system that has been determined to be abnormal.

7. **(Original)** The method for correcting a voltage of a secondary battery according to claim 1, comprising a step of calculating an average value of the voltage correction values in a predetermined period of time.

8. **(Original)** The method for correcting a voltage of a secondary battery according to claim 1, wherein the secondary battery comprises a battery block composed of plural cells or unit cells connected in series.

9. **(Currently Amended)** A method for estimating a state of charge of a secondary battery, the method comprising steps of:

calculating representative voltages from battery voltages measured by respective voltage measurement systems in a battery system having plural voltage measurement systems and having plural secondary batteries in each of the voltage measurement systems;

calculating voltage correction values on the basis of calculated representative voltages;

correcting the measured voltages of the secondary batteries in each of the voltage measurement systems, on the basis of the voltage correction values; and

calculating state of charge of the secondary batteries on the basis of the battery voltages obtained through a step of correcting the measured voltages;
and

controlling the state of charge of the secondary battery using at least the calculated state of charge.

10. **(Original)** An apparatus for correcting a voltage of a secondary battery, the apparatus correcting battery voltages measured in a battery system having plural voltage measurement systems and having plural secondary batteries in each of the voltage measurement systems, wherein the apparatus comprises:

voltage measuring part provided in the respective voltage measurement systems so as to measure voltages of the secondary batteries;

a representative voltage calculating part for calculating representative voltages from battery voltages measured by the voltage measuring part;

a voltage correction value calculating part for calculating voltage correction values on the basis of the respective representative voltages; and

a correction value reflecting part for correcting the measured voltages of the secondary batteries in each of the voltage measurement systems, on the basis of the voltage correction values.

11. **(Original)** The apparatus for correcting a voltage of a secondary battery according to claim 10, wherein the representative voltage calculating part calculates the representative voltages as average voltages of battery voltages measured in the respective voltage measurement systems, the voltage correction apparatus for a secondary battery comprises an average voltage difference calculating part for calculating differences with respect to average voltages of different voltage measurement systems, and the voltage correction value calculating part calculates the voltage correction values on the basis of the average voltage differences so that average voltages in the respective voltage measurement systems are equalized.

12. **(Original)** The apparatus for correcting a voltage of a secondary battery according to claim 10, wherein the representative voltage calculating part calculates the representative voltages without measured voltages of batteries that have been determined to be abnormal in the respective voltage measurement systems.

13. **(Original)** The apparatus for correcting a voltage of a secondary battery according to claim 10, wherein the representative voltage calculating part calculates the representative voltages without measured voltages whose deviations from the representative voltages in the respective voltage measurement systems exceed a predetermined range.

14. **(Original)** The apparatus for correcting a voltage of a secondary battery according to claim 10, wherein the representative voltage calculating part calculates the representative voltages without measured voltages of batteries whose temperatures are different from the temperatures of the remaining batteries in the respective voltage measurement systems and the differences are greater than a predetermined value.

15. **(Original)** The apparatus for correcting a voltage of a secondary battery according to claim 10, wherein the representative voltage calculating part calculates the representative voltages without measured voltages from a voltage detection circuit system that has been determined to be abnormal.

16. **(Original)** The apparatus for correcting a voltage of a secondary battery according to claim 10, wherein the apparatus comprises a voltage correction value averaging part for calculating an average value of the voltage correction values in a predetermined period of time.

17. **(Original)** The apparatus for correcting a voltage of a secondary battery according to claim 10, wherein the secondary batteries comprise a battery block composed of plural cells or unit cells connected in series.

18. **(Previously Presented)** An apparatus for estimating a state of charge of a secondary battery, comprising:

voltage measuring part for measuring voltages of secondary batteries in a battery system having plural voltage measurement systems and plural secondary batteries in each of the voltage measurement systems, and the voltage measuring part being provided in the respective voltage measurement systems;

a representative voltage calculating part for calculating representative voltages from battery voltages measured by the voltage measuring part;

a voltage correction value calculating part for calculating voltage correction values on the basis of the respective representative voltages;

a correction value reflecting part for correcting the measured voltages of the secondary batteries in each of the voltage measurement systems on the basis of the voltage correction values; and

a state of charge calculating part for calculating state of charge of the secondary batteries on the basis of battery voltages obtained by the correction value reflecting part.